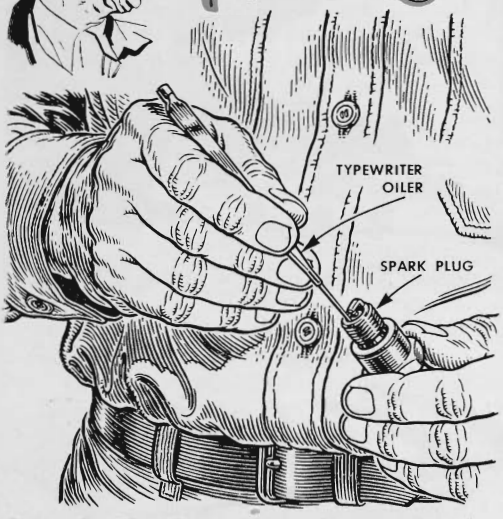
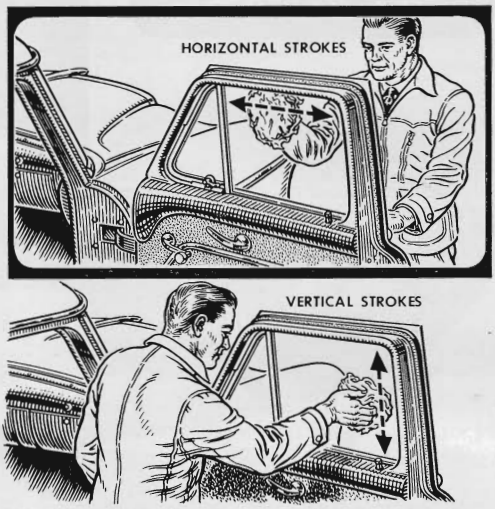
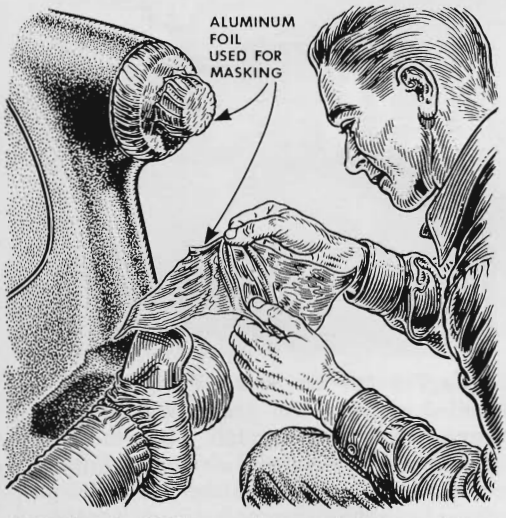
Hints FROM THE MODEL GARAGE



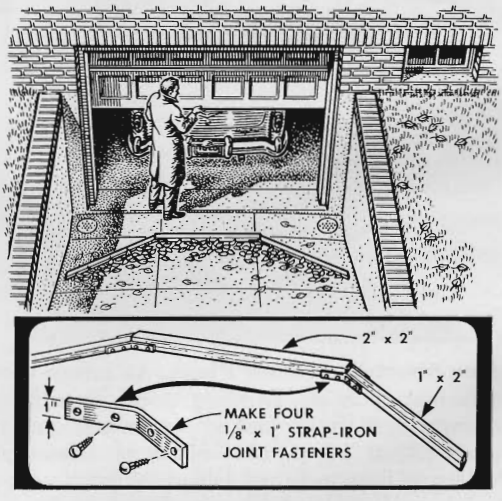
A touch oiler for a typewriter is a handy tool for doing a fast and thorough job of cleaning carbon from spark plugs. Even after a plug has been cleaned in a standard sander, the oiler may be useful for a final bit of scraping.



Stroke at different angles on opposite sides when cleaning your car windows and you'll then know at a glance which side needs more rubbing to remove streaks. No need to waste time trying one side, only to find the streak is on the other.



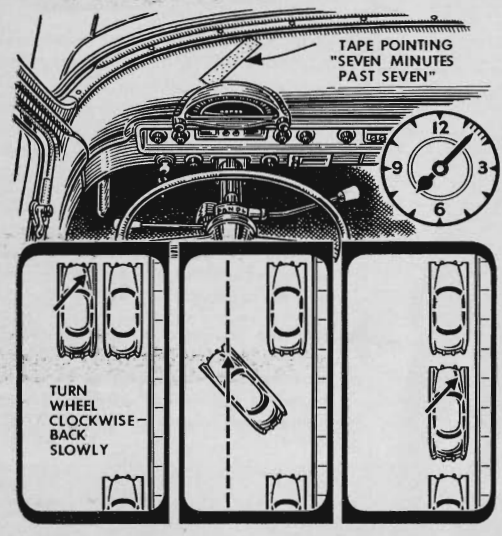
Aluminum foil can be used for masking bumper guards, bumpers, head lamps and other parts of a car when it is being spray-painted. The foil can be pressed around the parts without the use of tape. The sheets can be used repeatedly.



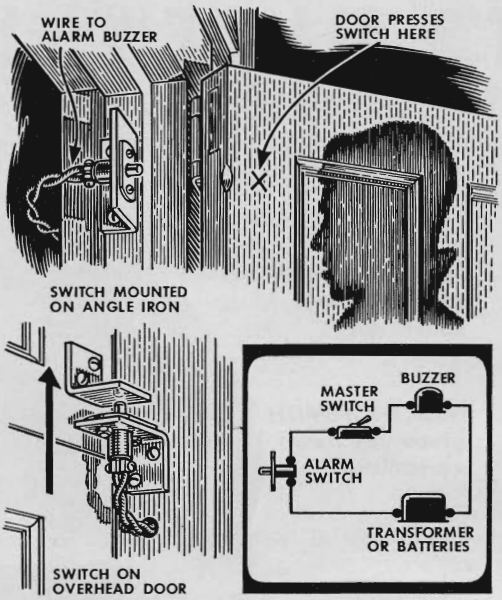
If leaves and dirt blow into a basement garage when the door is open, you can keep out most of the debris by installing a wooden barrier like this. The wheels of the car pass over the low end of the barrier without difficulty.

Please turn to page 244 for more auto hints

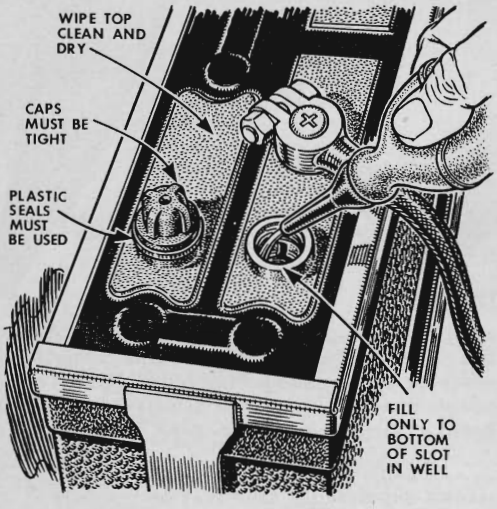
MORE Hints from the Model Garage



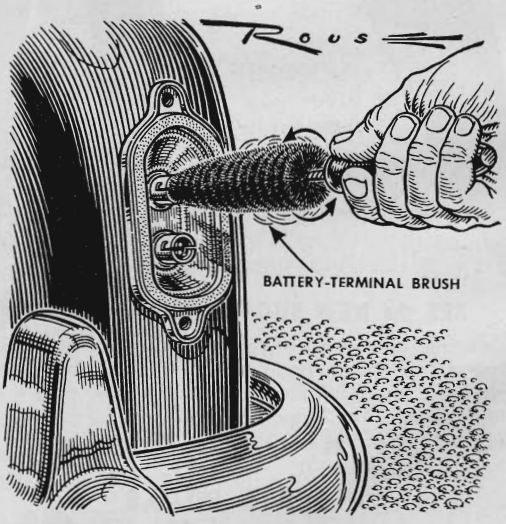
Parking in a tight spot is aided by an adhesive-tape marker on the dash shelf at a 7:07 o'clock angle. Stop parallel to the car ahead and about 18″ away, turn wheel sharply clockwise, and back slowly until the marker points straight up the street. Cut all the way left, and back in.



A burglar alarm is easily rigged up on a garage door with an inexpensive car courtesy-light switch connecting a bell-wire circuit with a bell or buzzer in the house. A master switch wired into the circuit permits disconnecting the alarm when you open the door yourself.



If you own a 12-volt battery, extra care is needed to control factors that cause corrosion. After careful filling, wipe off any spilled water. Corrosion is speeded by high current flow across the top of a wet battery.

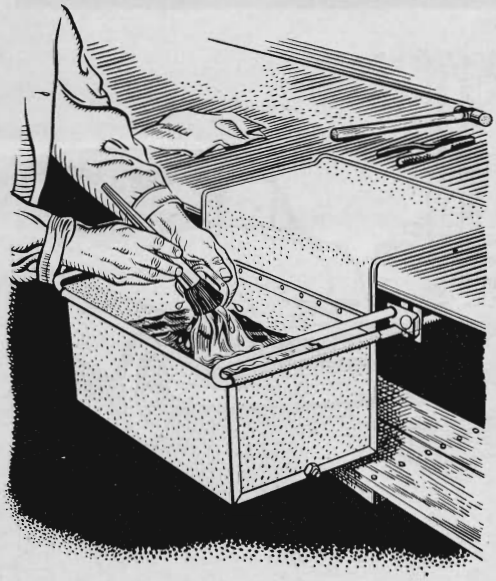


Dirty, corroded sockets in tail lights, small parking lights and older-type headlights can be cleaned with the end of a battery terminal brush rotated briskly inside the fixture. Turn off the switch to avoid a short.

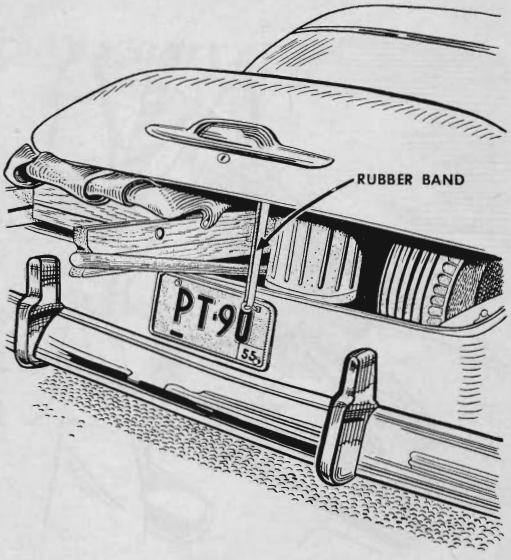
Hints FROM THE MODEL GARAGE

When a key breaks off in a car lock, try this trick. Smear the broken end with adhesive available from hardware stores for mounting sanding disks. Push the smeared end into the lock, then withdraw it. The adhesive may bring the tip out with it.

A trouble light usually has a hook only at the top, making it difficult to hang so that the light shines down. Solder a second hook to the back of the reflector, as above, and you will find that the light will be much more convenient to use.



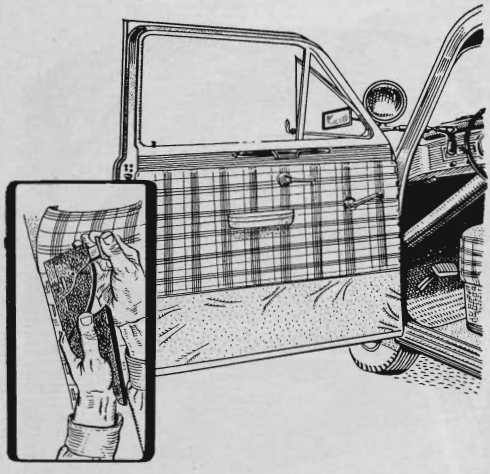
Storing solvent for washing small parts and tools in a service garage is easy this way. A fabric cover keeps dirt out of the metal tank and you can shove the tank back under the workbench when not in use. The slide is made of ½″ rod.



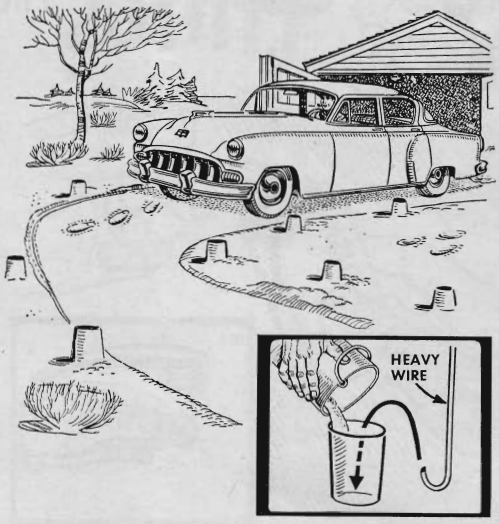
If your trunk won't close because you're hauling too much in it, here is one way you can secure the lid. Cut a rubber band from an inner tube, fasten one end under the lid and the other to an eyebolt locked with nuts to the license plate.

Please turn the page for more auto hints

MORE Hints from the Model Garage

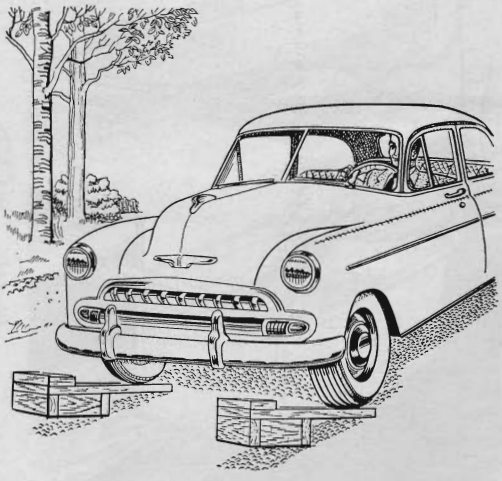


Discarded seat covers can be used to hide soiled or torn upholstery on car doors. Turn the covers with the bottom side out. Cut pieces with an inch to spare on all sides. Turn the edges under. Remove the door panel and staple the cover to it.



To keep on a driveway hidden by snow, line it with cement markers. Grease the inside of a glass jar, pour in cement and insert the bent end of a 3′ piece of heavy wire. Remove the jar when the cement has set. Next fall, raise the markers a foot or so.

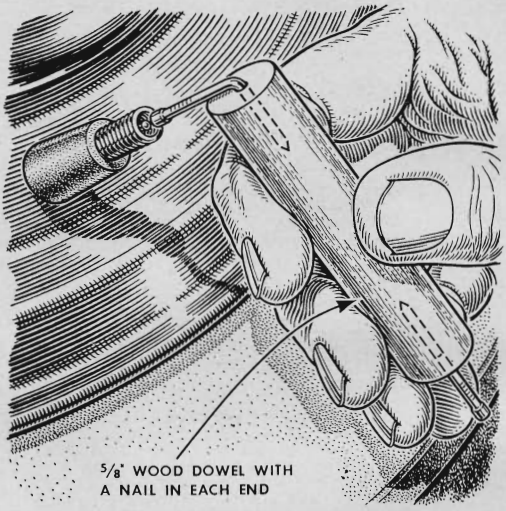
Pouring gasoline into the tank inlet of a modern car without splashing the finish is always difficult, even with a funnel. A piece of radiator hose clamped to the screw-top opening of a gasoline can will serve as a flexible pouring spout.



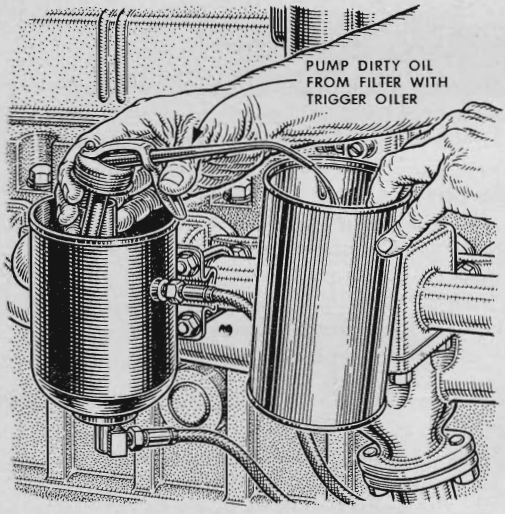
Ramps for undercar work can be made by cutting eight 11½″ lengths of two-by-six stock. Nail these on edge to make box forms. Nail each box under the end of a 36″ length of two-by-twelve plank. Put the ends under the wheels and drive up on the ramps.

Hints FROM THE MODEL GARAGE

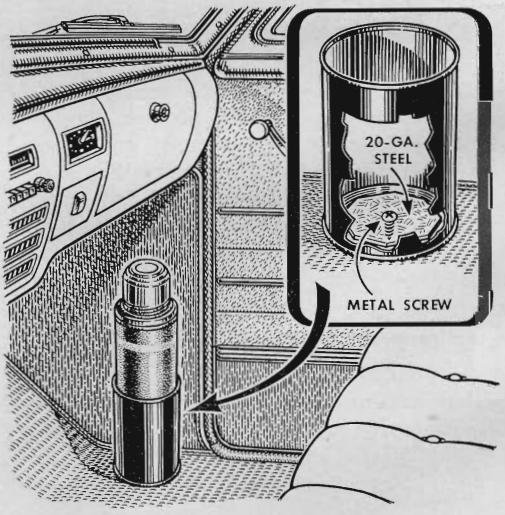
Soaking spark plugs in regular-strength ammonia is an almost cost-free substitute for sandblasting. It cleans overnight, according to John C. Roth of Philadelphia. Rinse them next morning in clear water and dry quickly in a warm place.



A simple valve opener when you are changing a tire is two six-penny finishing nails in the ends of a 4" length of ⅝" dowel. Bend one 90° for use with most cars and bikes and leave the other straight for truck and other horizontal valves.



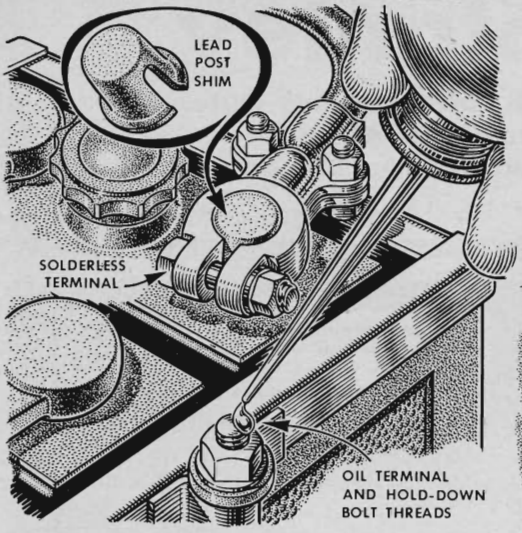
Cleaning out excess oil when changing the cartridge in most standard filters is less messy if you use the small pump from a trigger oilcan. A piece of neoprene hose on the end of the suction tube makes a good extension for use in a deep filter.



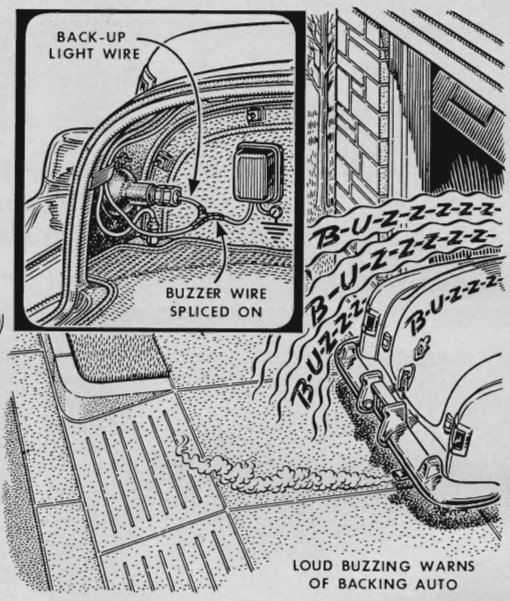
A rattleproof holder to keep a quart thermos handy for your night-driving coffee breaks can be made from a cylinder oilcan. Cut the top off clean and screw the can to the floor out of foot range. Paint it black or to match the dash or scuff plate.

Please turn to page 252 for more auto hints

MORE Hints from the Model Garage

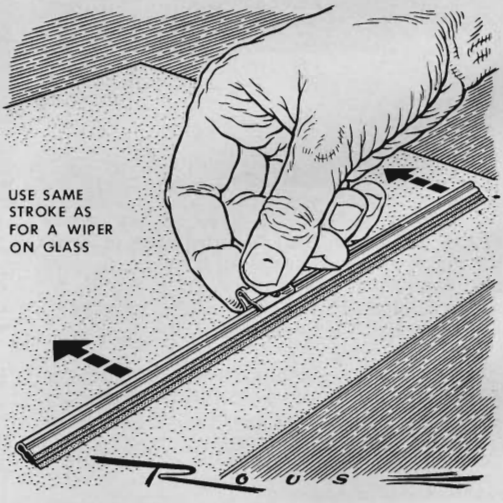


Some battery tricks, such as a spare solderless terminal to replace a broken one, may save you serious trouble on the road. An inexpensive lead shim permits tightening on a worn post. A drop of oil on the terminal and hold-down bolt threads every time you grease the car combats corrosion and makes battery removal easy.



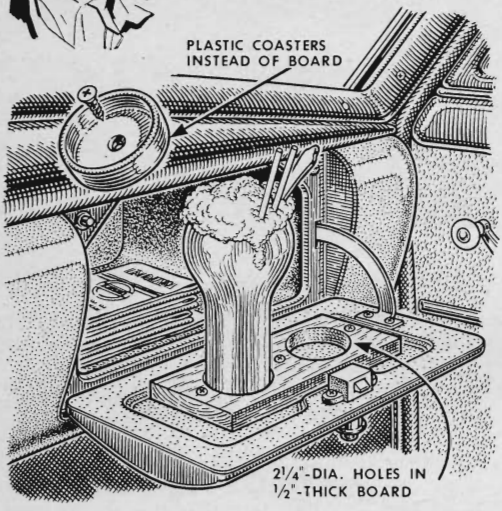
A back-up buzzer is an added safety measure for pedestrians when you back out of a driveway. You can install one quickly in the trunk of a car equipped with automatic back-up lights, using a door buzzer spliced in the wiring of one of the lights. Mounted and grounded on the metal body, it sounds off every time you back.

Wheel noises on cars having the new large-size hub caps are often caused by the caps themselves. Run a little brake fluid all around the inside crimp, prying gently with a screwdriver to let it all the way in, and you have a lasting cure.

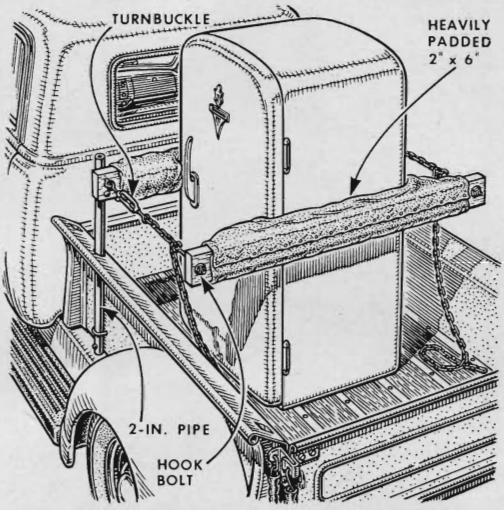


Worn windshield wipers can have their efficiency restored by stropping the edges on sandpaper until clean rubber shows for the entire length. Then you hold the blade on edge and slide it lightly lengthwise on the paper to square it up.

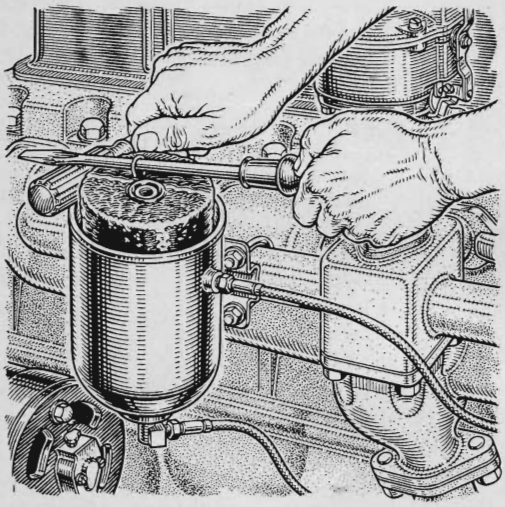
Hints FROM THE MODEL GARAGE



Balancing a soda glass while stopping for a roadside snack is no problem if you adapt the glove-compartment lid with a holder made from scrap wood. Deep-rimmed plastic coasters serve as well if attached with flat-head sheet-metal screws.



Heavy, padded braces at front and back prevent slipping and scuffing when you move a partial load in a truck. Link the holding chains as taut as possible to the free-riding rear brace, then tighten with the turnbuckles to hold the load fast.

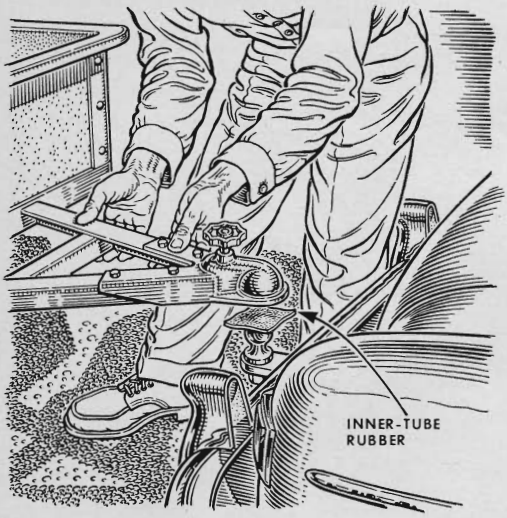


Two screwdrivers, with the handle of one used as a fulcrum, provide the leverage you need to start a stuck oil-filter refill without yanking off the wire handle. Take care not to nick the sealing seat of the housing, or leakage may result.

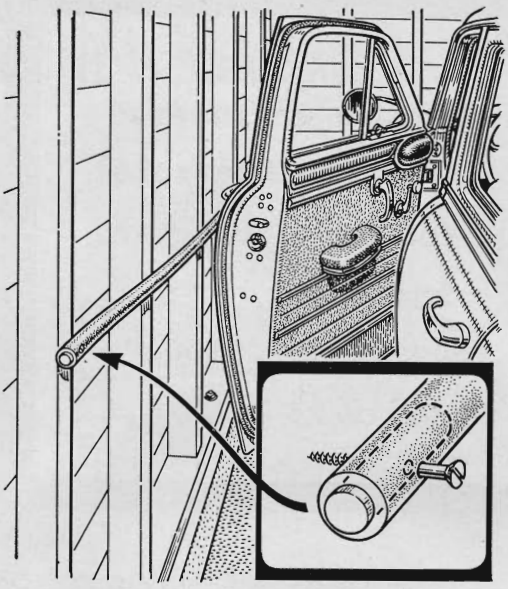
Bumper and grille protection when you are called upon to push—or need pushing—is carried in your trunk with a guard made from a short length of stout lumber. Bend and bolt on the steel straps so that they fit loosely over the bumper guards.

Please turn to page 248 for more auto hints

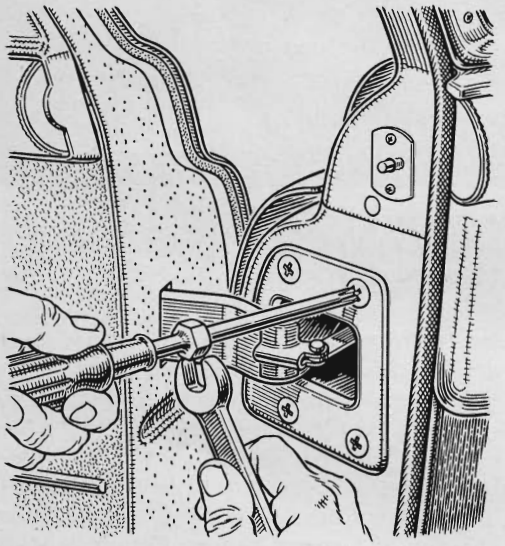
MORE Hints from the Model Garage



Rubber padding in the socket joint of the hitch will give you a nonrattling coupling that won't click and jerk when you pull a light trailer. Just lay a square of old inner-tube rubber on the ball before dropping the hitch on it.



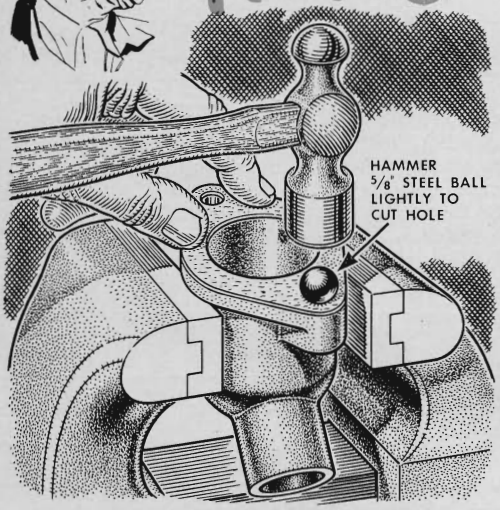
Discarded garden hose used as a bumper on your garage wall protects the car door when you open it to get in or out. Drive a short dowel in each end and drill for a mounting nail or screw. Use a concrete nail or expansion bolt in a masonry wall.



Turning a screwdriver while tightening or removing a door hinge can be made easier if you braze a nut on the shank near the handle. Then put pressure on the end of the screwdriver and do the turning with a small open-end wrench.

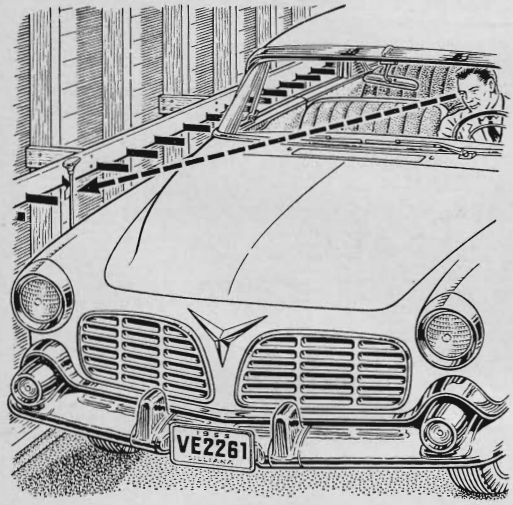
Model-airplane dope or fingernail polish will cut down annoying glare from dash lights. Simply dip the bulbs in the red dope and let dry. Then, checking as you work, start at bottom and gradually scrape off coating until light level is just right.

Hints FROM THE MODEL GARAGE

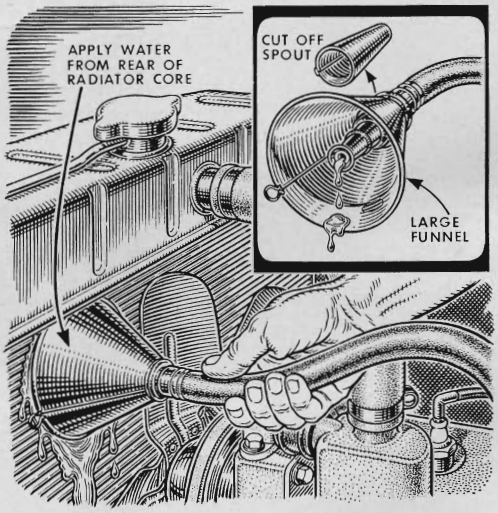


In making a gasket, you can locate and cut bolt holes in one step with a steel ball slightly larger than the hole. Cut the gasket to shape and place it on one surface to be joined. Tapping the ball lightly over the hole makes a clean cut.

A roadside reflector can be made from a discarded electric heater of the reflector type by covering the concave surface with luminous paint or strips of reflector tape. It makes a neater job if you first remove the wiring and old heater element.



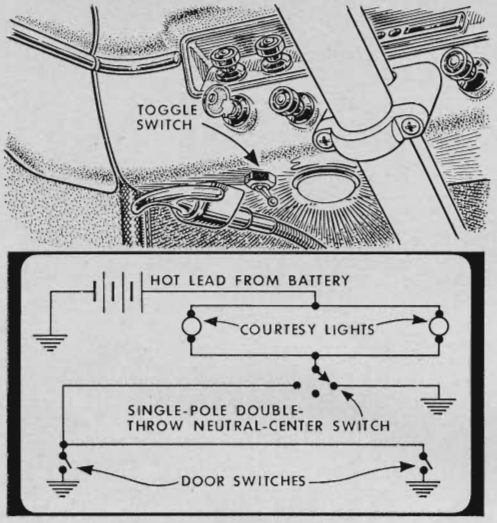
Installing a guide rail on the opposite garage wall helps you leave room to get out on the driver's side. When the fender guide on your car just touches flexible fingers cut to length from an inner tube, there's room to open the other door, too. Insert fingers in saw slots in a one-by-three.



Cleaning radiator-core openings to free them of collected insects can be done without wetting the ignition. Cut off the spout of a funnel and adapt the top part to fit over the hose nozzle. Splashing water will be deflected back to the core and run harmlessly to the ground.

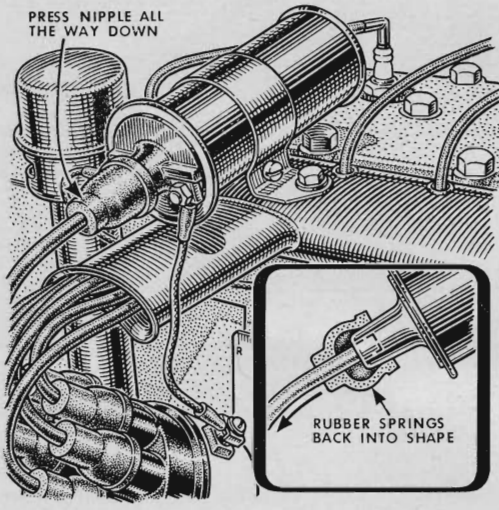
Please turn to page 250 for more auto hints

MORE Hints from the Model Garage

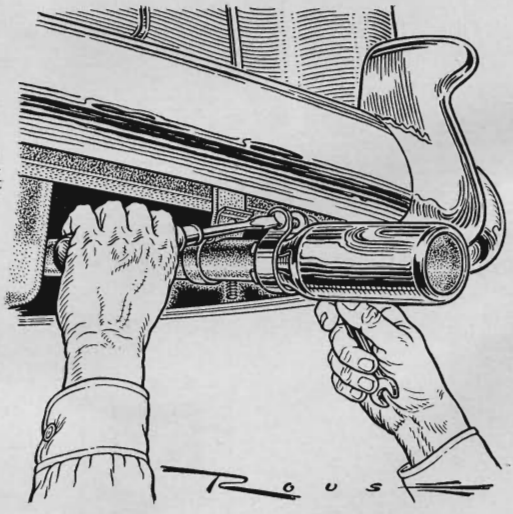


Courtesy lights or dome lights can be controlled with a three-way toggle switch in the circuit. On one side the switch gives you light while the doors are open; on the other the light remains on whether the doors are open or shut. The center position is at "off" at all times.

An office-in-the-car is easy to contrive with a tape recorder mounted on the front seat. To keep the recorder level, strap it to a plywood base having sides curved to the contour of the seat. It's a business-trip convenience to permit report dictation while held up in traffic.

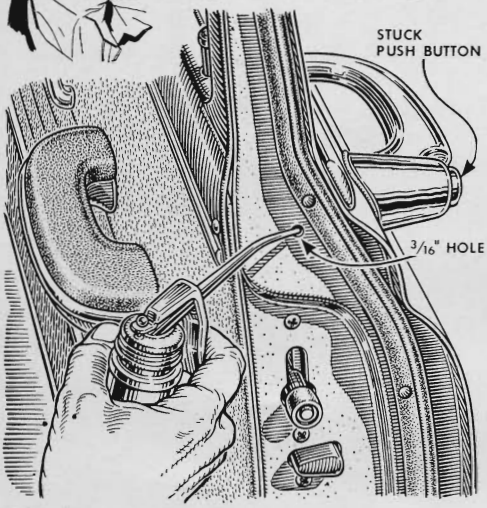


When rubber boots are used on ignition-coil or distributor high-tension wires, you should push them all the way down on the tower. Otherwise the tendency of rubber to spring back into shape may force the wire out and break the connection.



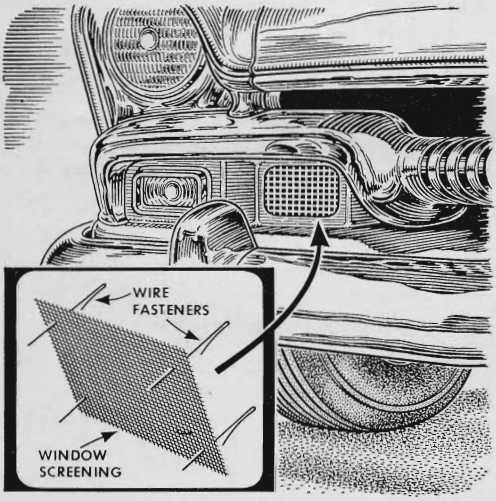
An exhaust deflector clamped on the end of the tailpipe is not just for looks. It is a good way to keep exhaust gases from discoloring your bumper chrome. Bushings are available for clamping a deflector to a small-diameter or oval tailpipe.

Hints FROM THE MODEL GARAGE

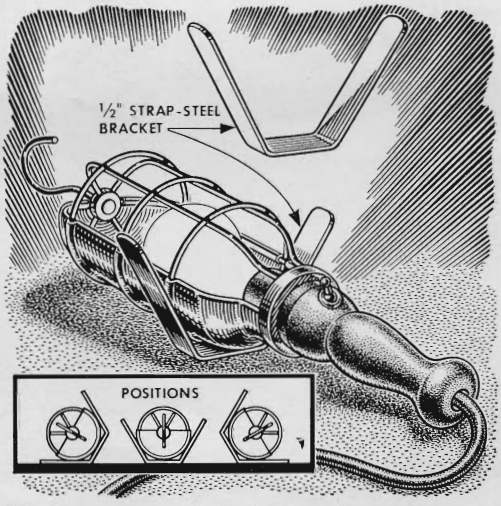


Freeing a stuck push button, on some cars requiring removal of the entire door panel, is easy if you drill the door edge in line with the latch contact. Squirt in penetrating oil to remove rust, then lubricate regularly with graphite.

To keep track of gas consumption, record the date, mileage and gallons bought each time you stop. Notes can be jotted on masking tape on the top edge of the door. When one strip has been filled, pull it off and stick another in its place.



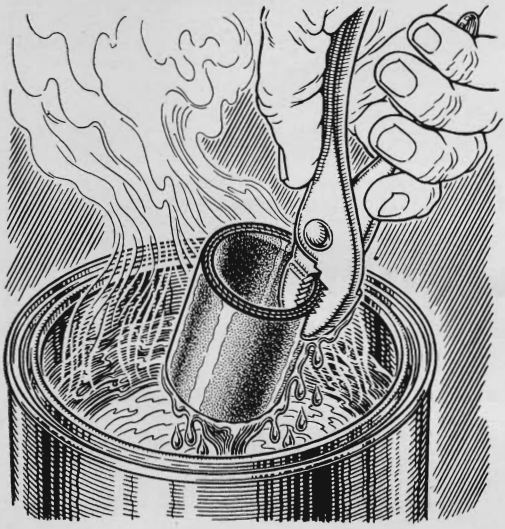
Window screening will keep small insects from getting into your car through the heater and ventilating air-inlet grilles. It can be fastened to the coarse-mesh openings with hooked wires pulled back through, as pictured in inset, and then twisted tight.



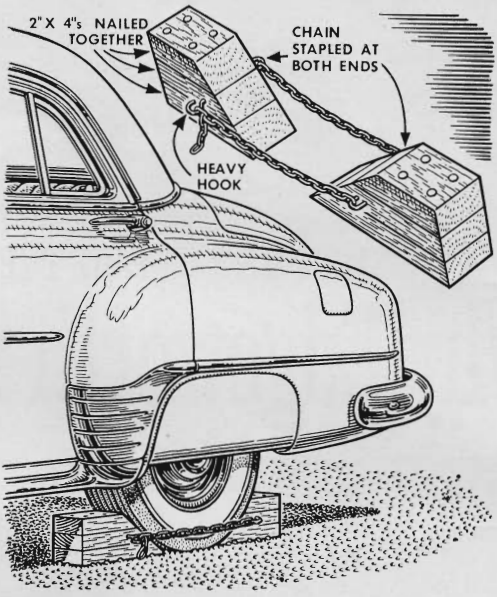
To keep a work light in place when you use it under the car, weld or bolt a bracket to the shield on the guard. It will then give light where you want it and won't roll from place. The flat sides allow concentration of light in any of three positions.

Please turn to page 232 for more auto hints

MORE Hints from the Model Garage

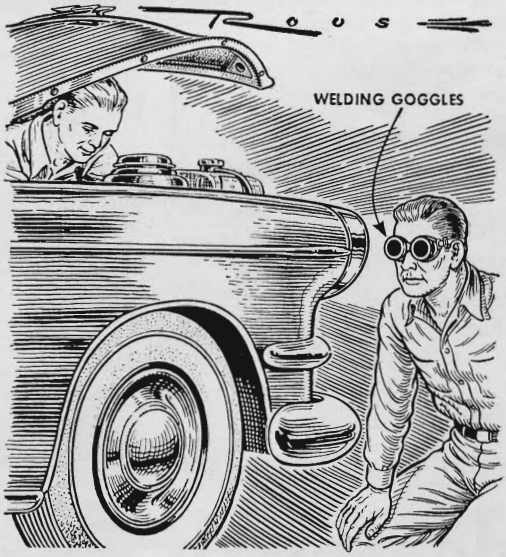


Soaking a new radiator hose in hot water helps to make it pliable. Then you can slip it more readily onto the radiator and cooling-system connections, especially when they are so close together that working with a stiff hose becomes a difficult job.



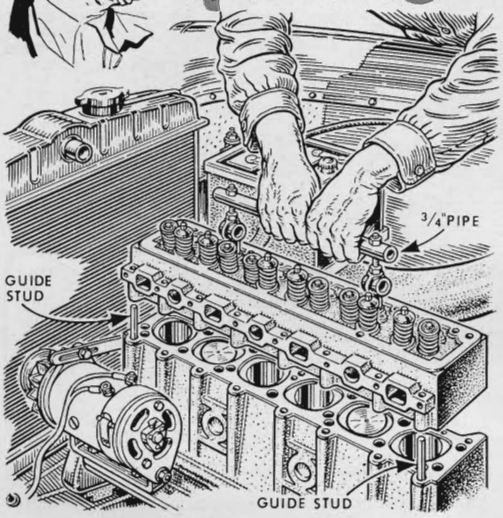
Chocking a wheel is a good safety practice when you change a tire or do other repairs with the car jacked up. A set of chocks made from scrap lumber and chained to fit snugly in front of and behind the wheel is a handy aid to carry in the trunk.

When the lamb's-wool bonnet of your electric buffer needs cleaning after polishing the car, a suitable tin-can lid used as a drying form will prevent shrinking. Wash wax and dirt out of the bonnet, and slip it over the lid, leaving it on until dry.

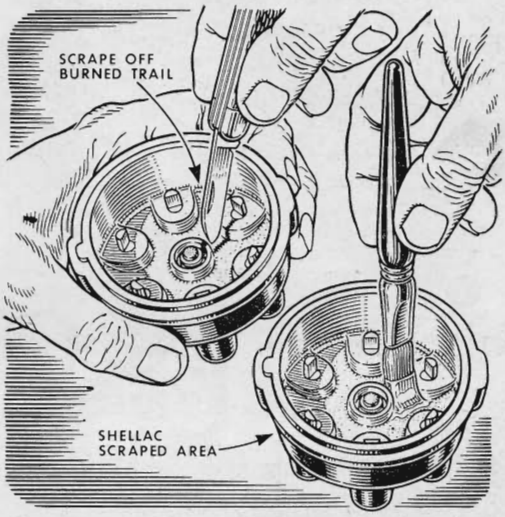


Welding goggles worn by a helper when you are working on the lighting system will enable him to look directly at the sealed-beam filaments as you test the wires. He can detect flicker in either filament without suffering any damage to his eyes.

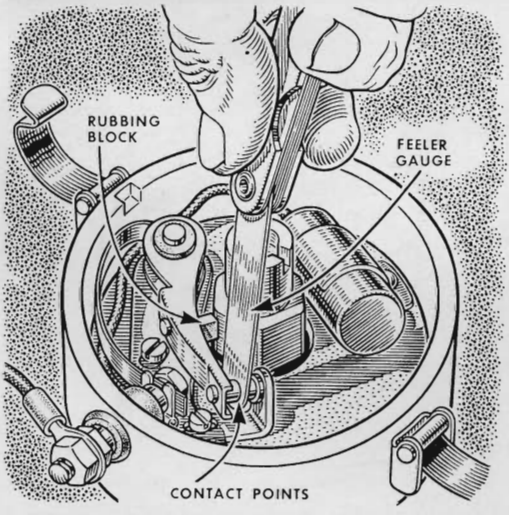
Hints FROM THE MODEL GARAGE



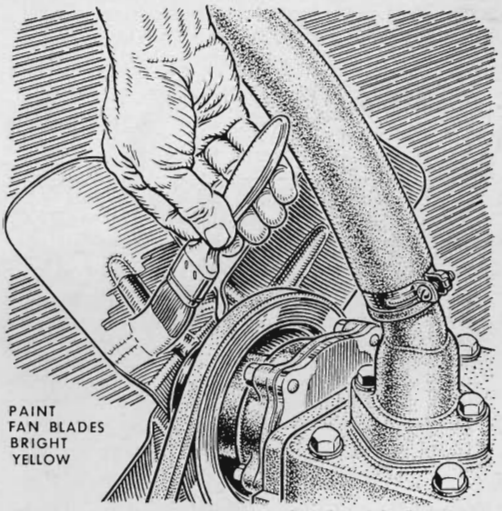
Tired of lifting overhead-valve heads for a succession of ring-and-valve jobs, one mechanic devised a convenient handle. Removing the rocker arms, he bolted a length of pipe to the brackets. Studs in hold-down bolt holes guided replacement.



You can make a quick repair of a short in a distributor cap by scraping clean its telltale carbon trail between terminals and then coating the area with shellac. If all the carbon is removed, the shellac insulation should last a long time.



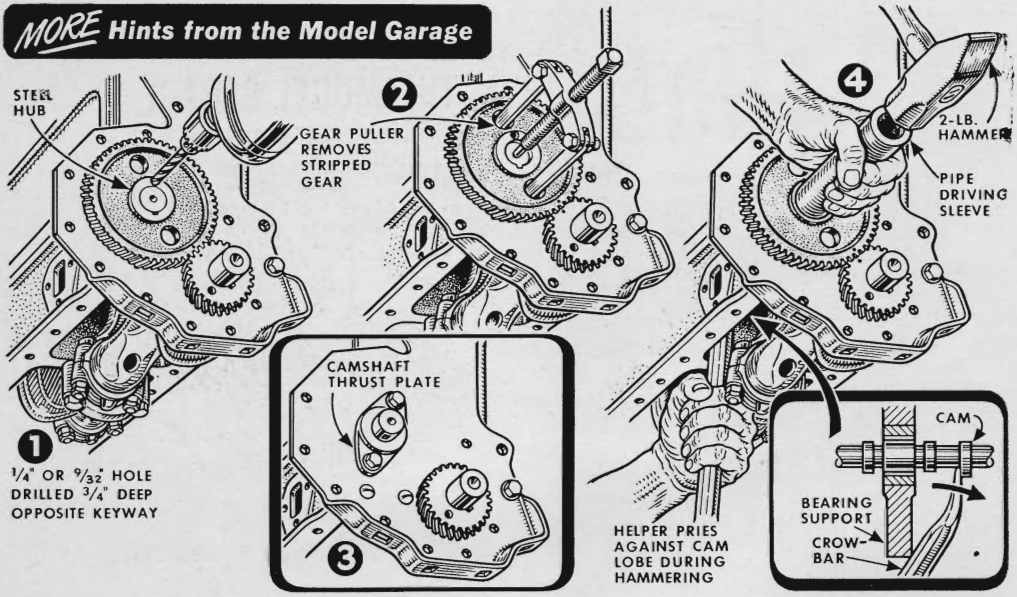
When you replace points, be sure to check the gap at intervals of around 1,000 miles until the fiber rubbing block shows a glaze. It wears rapidly until then, and may shorten the gap enough to make starting hard or burn the points.



Bright-yellow paint on the fan blades may save you a cut hand. Painting the hood prop rod and its slot, too, will help you fit them together in the dark or dim light. The color has high visibility. Clean off all grease first so the paint will stick.

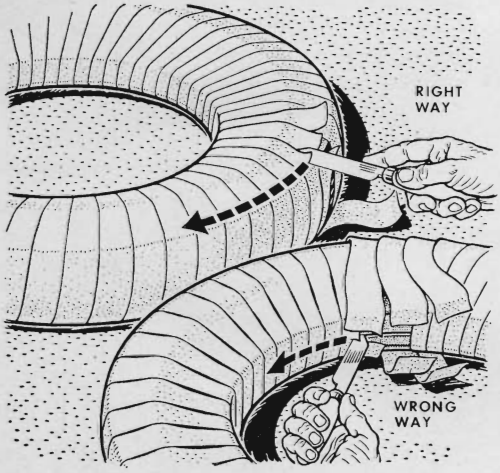
Please turn the page for more auto hints

MORE Hints from the Model Garage

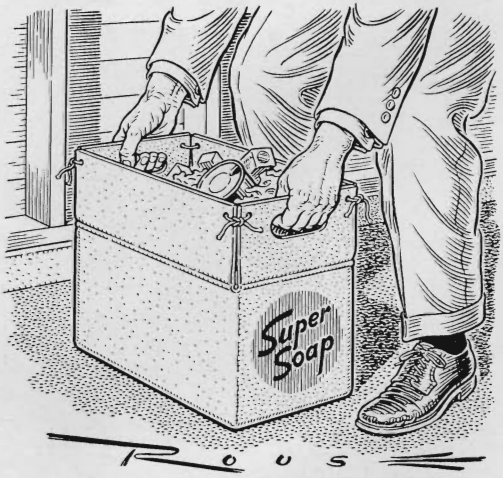


A Chevrolet timing gear can be replaced without removing the camshaft if you drill the hub opposite the keyway to weaken it so the web won't break under gear-puller pressure. Don't drill the shaft. Weaken further by driving in a tapered punch.

Standard practice may damage the thrust plate and require replacement, which this method avoids, but check it and the Woodruff key. Film the shaft with No. 10 oil and be sure the punch marks on the new gear and crankshaft gear are in mesh. Drive with short, sharp blows, using a piece of pipe as a driving sleeve, while a helper supports the shaft with a crowbar wedged carefully so as not to burr the cam. Stop when a feeler gauge shows .002″ clearance between hub and thrust plate.



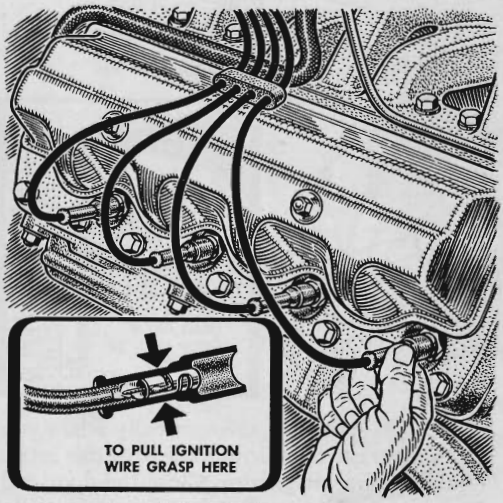
Wraps on tubeless tires should never be cut through between beads. It's bad practice on any tire, but with the tubeless type you stand the added chance of cutting the sealing area, causing a leak. Slice at the shoulder, where nicks are superficial.



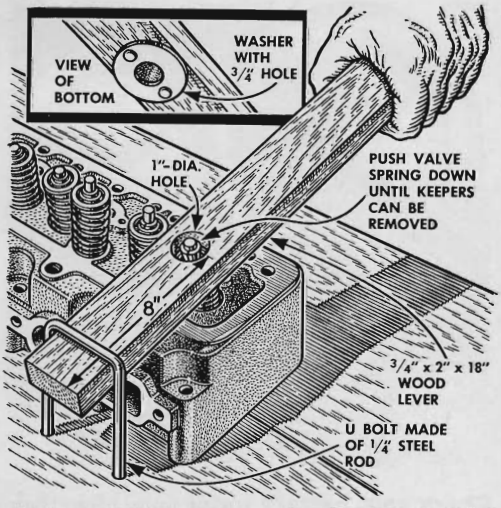
Heavy cardboard cartons, frequently used as disposable trash boxes in a home garage, are easier to move if you tie the cover flaps in a vertical position and slot the ends for handles. The lengthened sides will also give you added capacity.

Hints FROM THE MODEL GARAGE

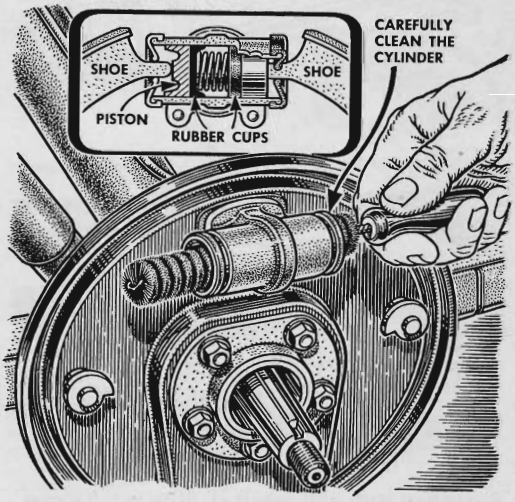
Save your fingernails by using last winter's plastic ice scraper to remove vacation stickers and resort advertisements accumulated on your car during the summer. A clean rag dipped in solvent or dry-cleaner fluid will remove any pieces missed by the scraper.



When cleaning or changing spark plugs, owners of Plymouth V-8s should pull the ignition wires by grasping them only at the reinforced section near the plug. Pulling on the wire might cause an internal break resulting in misfiring or weak spark.


VIEW OF BOTTOM
WASHER WITH 3/4" HOLE
1"-DIA. HOLE
PUSH VALVE SPRING DOWN UNTIL KEEPERS CAN BE REMOVED
8"
3/4" x 2" x 18" WOOD LEVER
U BOLT MADE OF 1/4" STEEL ROD

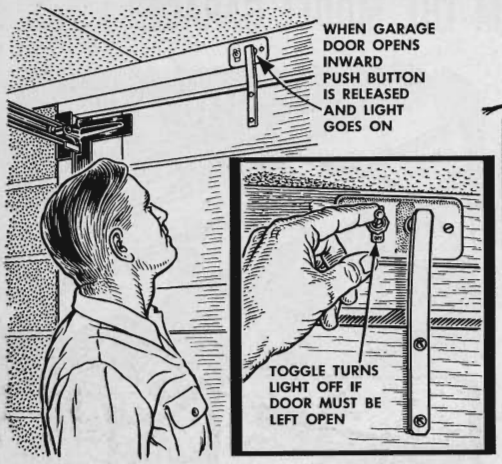
Valve springs on overhead-valve engines can be compressed and held safely while the keepers are removed by using a piece of hardwood as a lever. Place the head on a heavy board and fasten a U bolt in position behind it. Shift the head after each spring is removed to align the next valve with the U bolt. Reverse procedure to install valves.

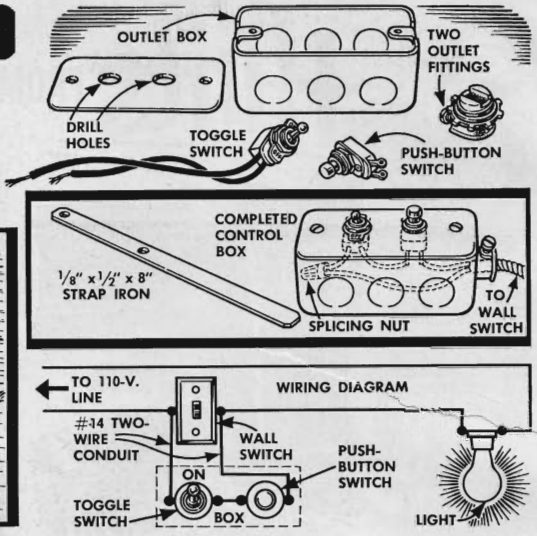


Clean wheel cylinders thoroughly when installing new brake linings. The full thickness of the new lining will push the cups deeper into the cylinder, and gum or dirt on this long-unused part of the wall may cause the cylinder to leak. Be sure to use only hydraulic-brake cleaning fluid, and allow to dry before reassembling parts.

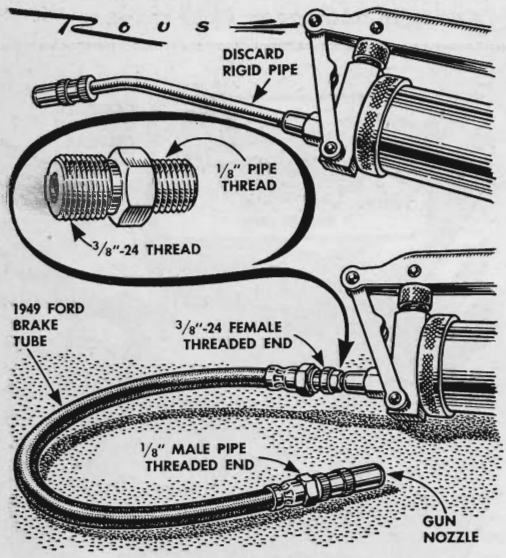
Please turn the page for more auto hints

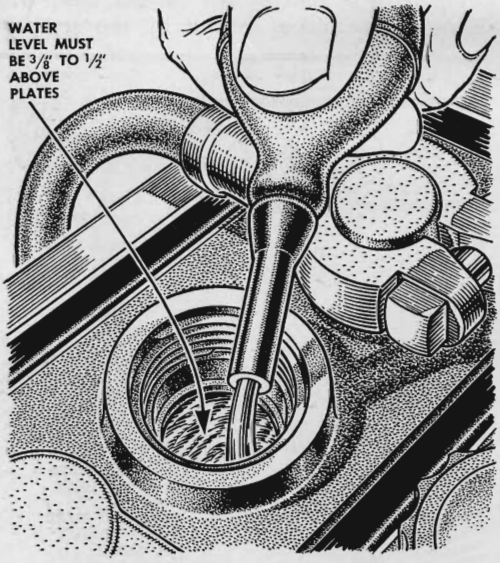
MORE Hints from the Model Garage





The light goes on automatically when you open a garage door equipped with this setup—just as in a refrigerator. Close the door and it goes out. A normally closed, spring push-button switch operated by a strap-iron finger on the door does the trick. A length of two-wire armored cable links the automatic control box to the wall switch box in an out-and-back circuit. Connections in the wall switch box are made at the switch-terminal screws. Remove a knockout plug to admit the wires and clamp them to the box.

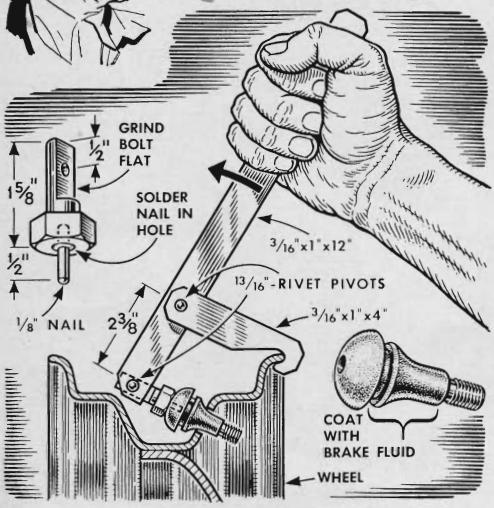




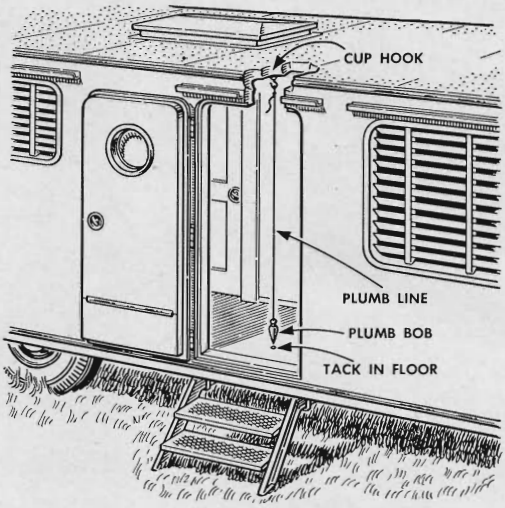
A grease gun will reach all fittings with ease if you replace the rigid-nozzle tube with a '49 Ford flexible brake line. Attach the line to the gun with a tube fitting having a ⅛" pipe thread on one end and a ⅜"-24 thread on the other. Screw the original grease-gun nozzle on the male ⅛" pipe thread on the free end of the brake line.

Check your battery water more often than usual during the hot late-summer days. The water evaporates faster in the excessive heat and can drop below the top of the plates in a week's time, drying them out and reducing output. Maintain the water level ⅜" to ½" above the plates, but don't overfill as it will bubble out of the vents.

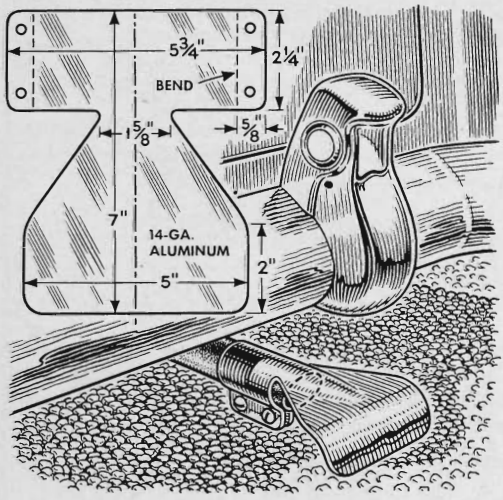
Hints FROM THE MODEL GARAGE



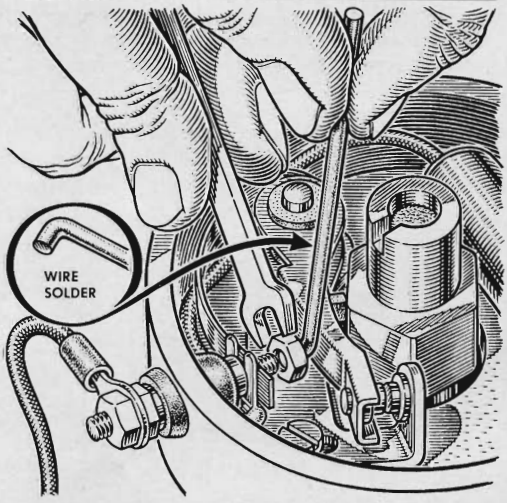
Improvised lever tool, assembled from steel strips, applies straight, firm pressure to insert tubeless valves in wheel holes without damaging them. The hook acts as a fulcrum against the wheel rim, and pressure on the long end of the handle is multiplied at the short end. Application of brake fluid makes insertion easier.



Set up a trailer once with a carpenter's level to install this leveler. Then suspend a plumb line from a cup hook screwed into the ceiling and drive a tack into the floor beneath the point of the plumb. All future leveling can be done by hanging the line on the hook and shifting the trailer until the plumb bob hovers over the tack.



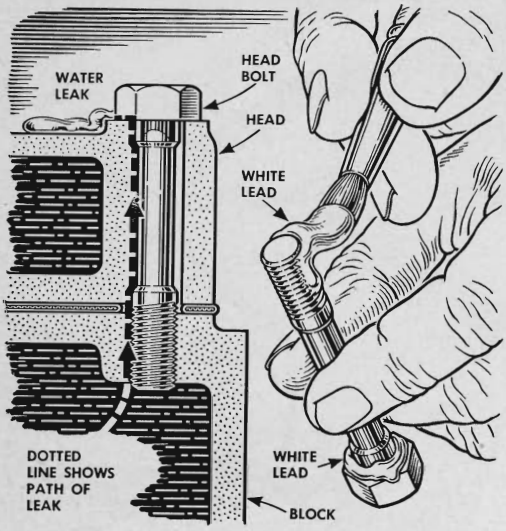
Made from one piece of 14-gauge sheet aluminum, this exhaust deflector will remain bright and rust-free while it directs hot exhaust fumes down toward the ground. Clamp it to the tailpipe with two bolts and bend the outer end down slightly.



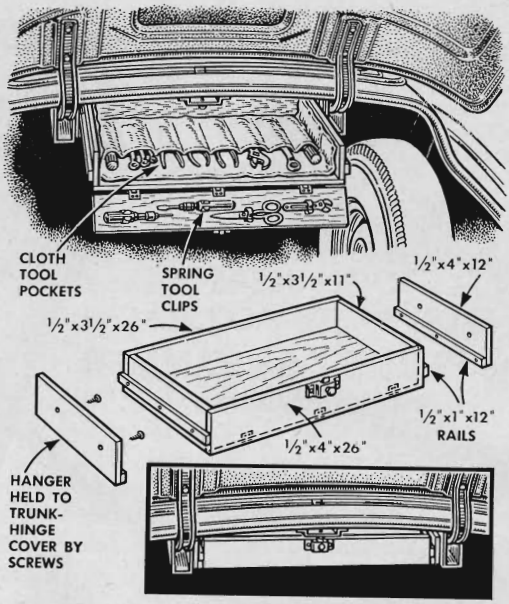
A piece of wire solder will guide a small nut onto a bolt where your finger can't reach. Thread the nut part way on the soft solder and place it against the bolt end, where a wrench can turn it off the solder and onto the bolt.

 Please turn to page 278 for more auto hints

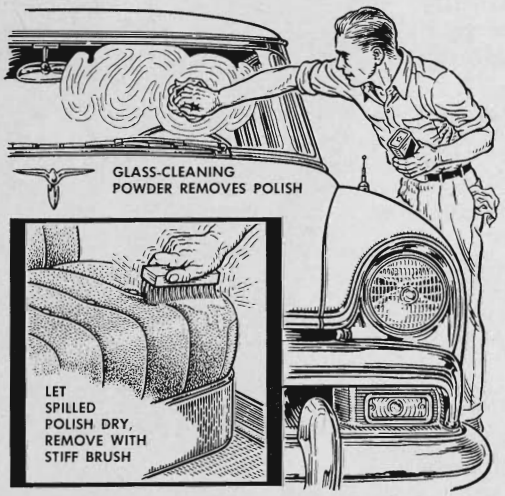
MORE Hints from the Model Garage



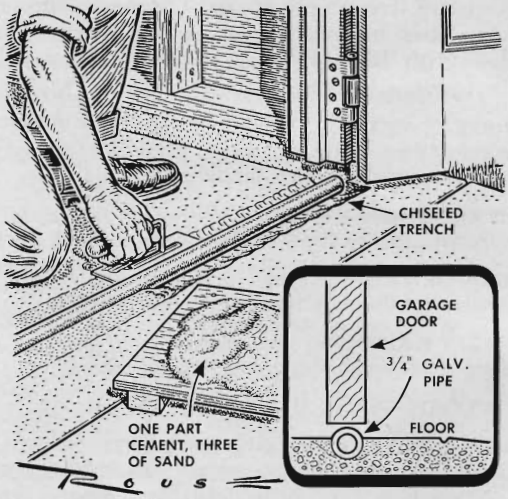
Don't blame the head gasket when traces of water or antifreeze appear on top of a cylinder head. Chances are that the fluid is seeping up along the threads of a head bolt. Stop the leak by removing the bolt and coating the threads and shank with white lead or gasket cement.



Tools won't rattle or be in the way if they're stowed in a space-saving drawer like this one built to fit between the rear-deck hinges. Fasten wood side rails to the hinge covers with self-tapping screws and fit a cupboard catch to the drawer front to keep it from sliding.

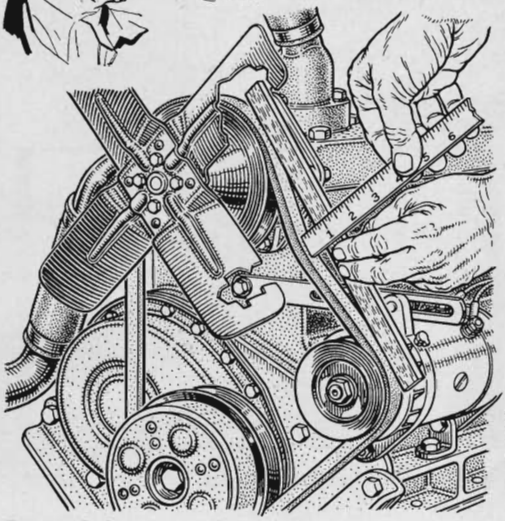


Put finishing touches on a polish job by cleaning up any mess made by the polish. Clean wax smears off windshield with glass cleaner for better vision at night. If polish is spilled on upholstery, allow it to dry then brush it out. If spot remains, rub lightly with soapsuds.

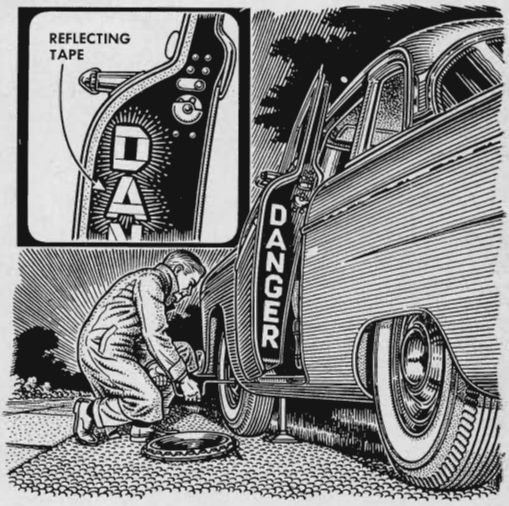


To keep rain, leaves and dirt from blowing under your garage door, install a length of galvanized pipe across the threshold. Chisel out a trench from jamb to jamb about half the diameter of the pipe, lay the pipe in place and trowel concrete flush with the floor on both sides.

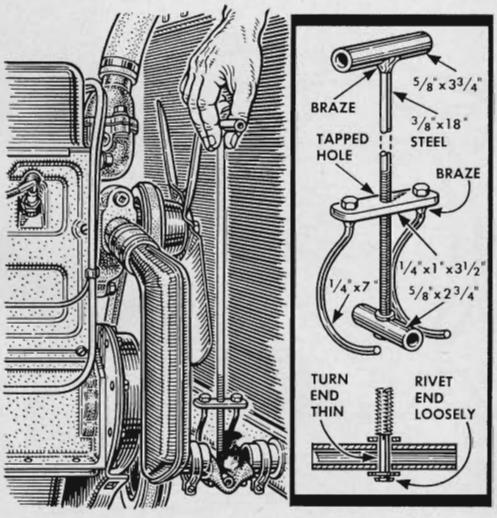
Hints FROM THE MODEL GARAGE



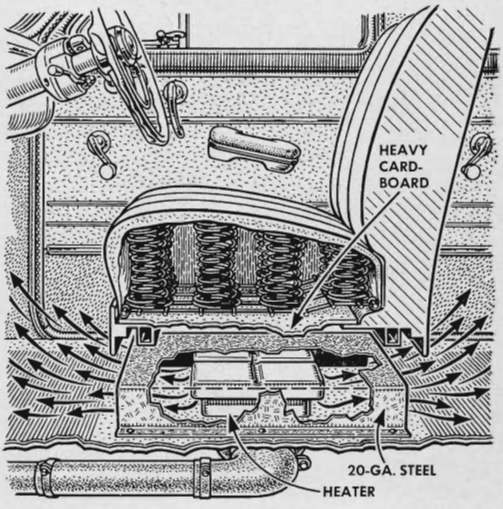
A straightedge placed across the pulleys on the generator and fan provides an easy means of checking the deflection of a fan belt when adjusting it. Specifications vary slightly for different cars, but 5/8" deflection is a good average adjustment.



Flash a brilliant warning to oncoming motorists at night by arranging strips of red fluorescent tape to spell out DANGER on the edge of your left front door. It will be visible every time you open the door or make roadside repairs.



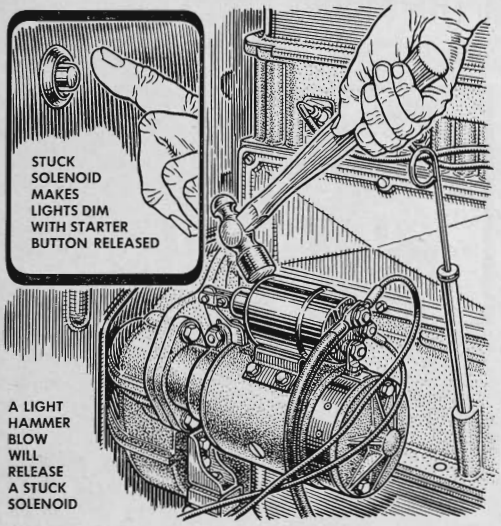
Almost like a mechanical hand, this tool bends a replacement radiator hose and positions it between the lower radiator connections. Unscrewing the handle straightens the hose and it is then nudged over the fittings by hand.



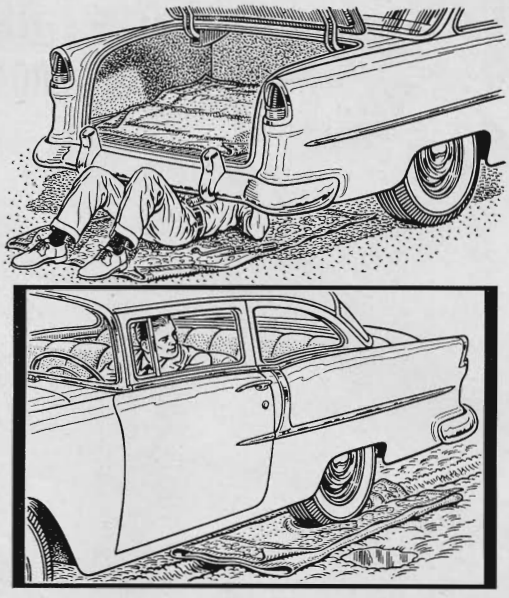
Minimize heat loss this winter by making a sheet-metal duct to fit over an underseat heater. The duct, open at both ends, permits free circulation, yet prevents the heat from rising and accumulating in the spring pocket under the seat.

Please turn the page for more auto hints

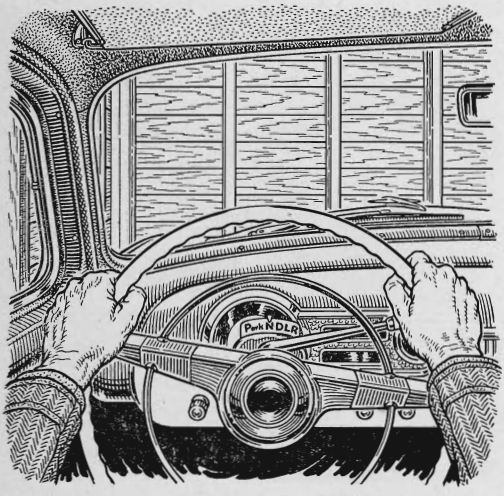
MORE Hints from the Model Garage



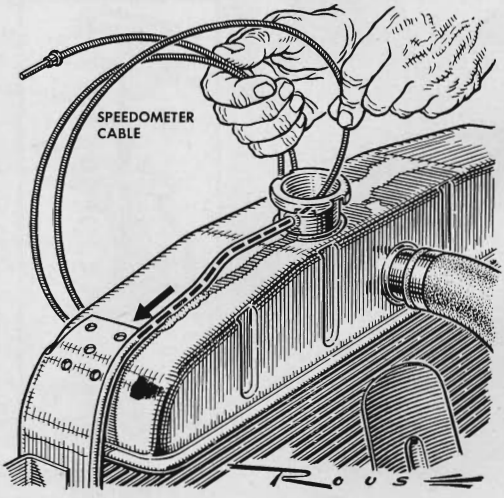
When an engine won't start after slow cranking in cold weather, the starter pinion-gear sometimes stays in mesh with the flywheel gear, holding the contacts together. You can check this by turning on the dash lights before starting. If they remain dim *after* cranking, tap the solenoid to release the plunger and open the contacts.



Old rugs can be useful around a car. Instead of throwing them out, cut them up, stow a few pieces in the trunk and leave the rest in the garage. Spread them on the ground or over dirt or mud when making repairs or changing a tire. If you get stuck in snow or mud, toss one under a rear wheel for traction.



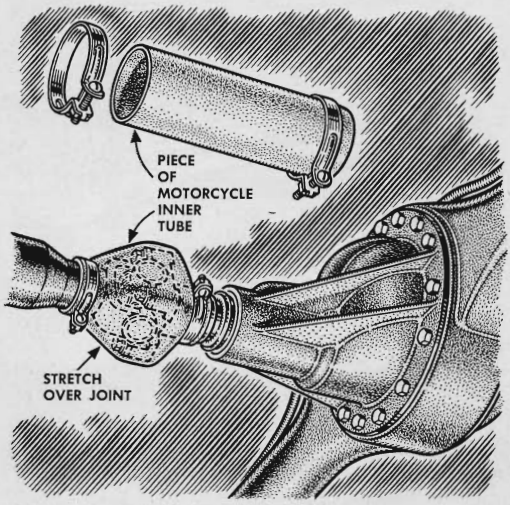
If you leave the steering wheel just as it is when the car is driven into the garage, you'll back out exactly as you came in. Similarly, after maneuvering into a tight parking space, leave the wheel as is for a quick exit.



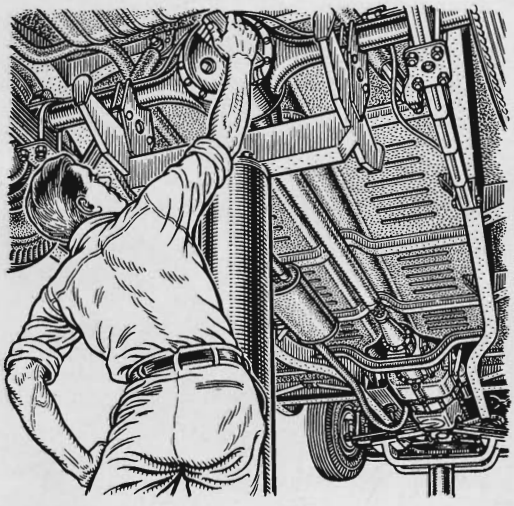
An old speedometer cable, removed from its housing, makes a good flexible snake for cleaning a clogged overflow pipe. This is important maintenance because pressurized cooling systems relieve excess pressure through the overflow pipe.

Hints FROM THE MODEL GARAGE

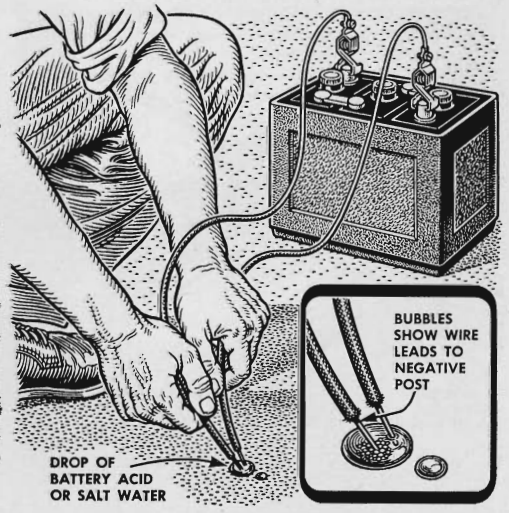
Clean headlights are as important as a clean windshield when driving at night. Even though yours may look clean, tests have proven that a single day's accumulation of dirt on headlight lenses can reduce their effectiveness by as much as half.



Universal joints will stay free of dirt and mud with these protective covers. Cut pieces about 10″ long from a small-size inner tube and have your garageman slip them on the next time you have the bearings packed. Close the tube ends with hose clamps.



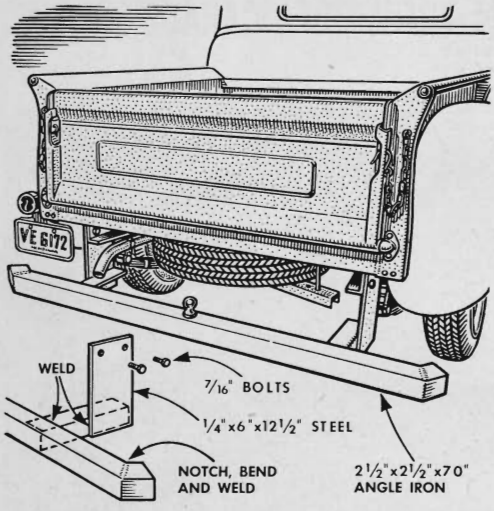
Running gear will run cooler if steam-cleaned or brushed with solvent once a year. A coating of grease and dirt on the rear axle, transmission and oil pan keeps the heat in, thinning out the lubricants and reducing their efficiency considerably.



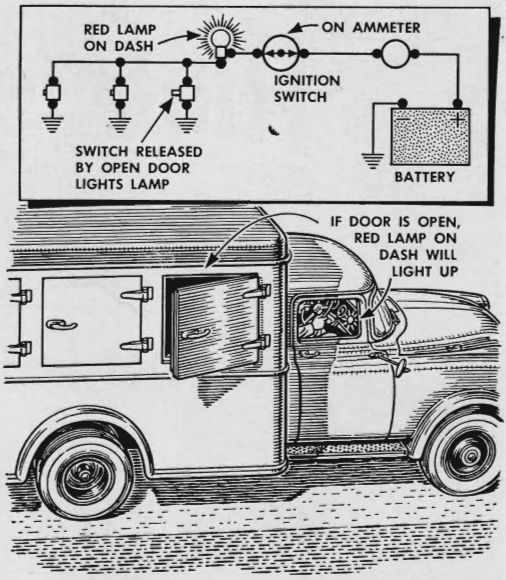
If the terminal marks on a battery are worn, attach two wires to it and hold their ends in a drop of battery acid, salt water or saliva. Move the wires close together and bubbles will form around the one that leads to the battery's negative terminal.

Please turn the page for more auto hints

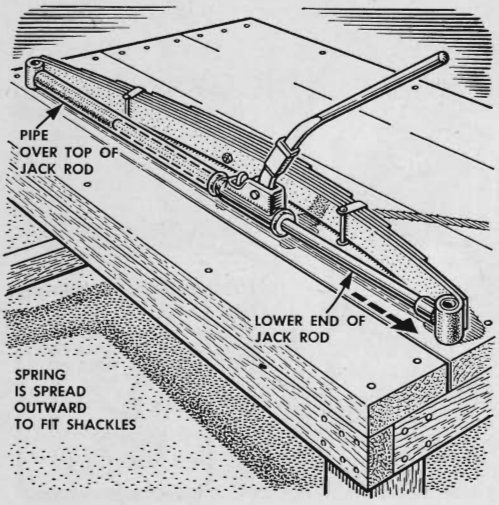
MORE Hints from the Model Garage



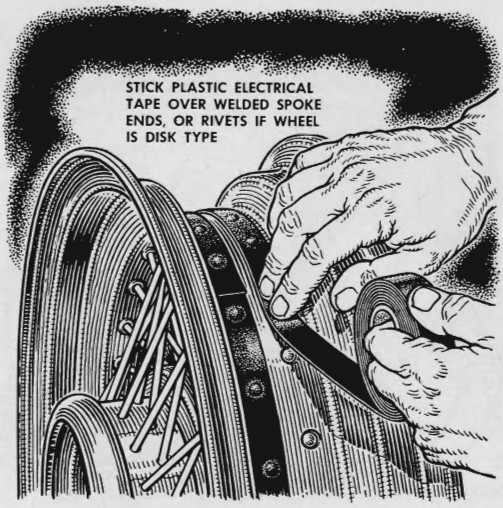
This welded angle-iron bumper doubles as a trailer hitch and rear step for a light pickup truck. The assembly was welded to ¼″ steel plates bolted to the truck's frame. The ends were shaped by cutting a V notch, bending the angle, and then welding the joint. A ball hitch for a trailer was mounted in the center of the bumper.


RED LAMP ON DASH
ON AMMETER
IGNITION SWITCH
SWITCH RELEASED BY OPEN DOOR LIGHTS LAMP
BATTERY
IF DOOR IS OPEN, RED LAMP ON DASH WILL LIGHT UP

Truck owners may save a costly lawsuit by mounting an indicator light on the dash to tell when a van or freezer door is swinging open. Install a push-button switch (the type used on passenger-car doors) on each door and wire them through the ignition switch so that the light won't go on while the truck is being loaded.



Leaf springs can be installed easily by spreading their ends outward with a bumper jack to line up the eyes with the shackle holes. Slip a length of pipe over the top half of the jack bar and work the ratchet against it.

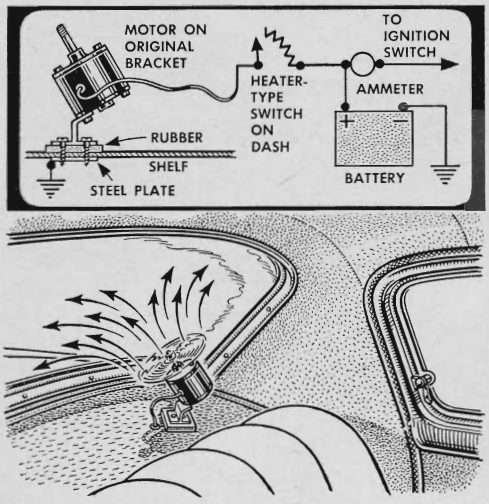


When mounting tubeless tires on standard rims, seal the heads of the rivets or spokes with plastic electrical tape to prevent possible air leaks. Clean the rim, and apply the tape evenly to avoid throwing the wheel out of balance.

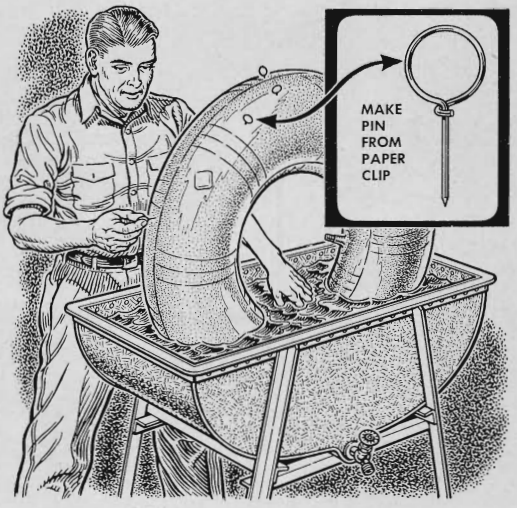
Hints FROM THE MODEL GARAGE

A handy snack table for two is easy to make from an old sun visor. Position and bolt the bracket to the dash so that the visor swings under it when not in use. Use a second, U-shaped bracket to support the downward-hinging edge of the extended visor.

When a trailer has a flat, it's hard to see it from the tow car. Place two strips of tape on the trailer front where you can see them in the rear-view mirror just above the lower edge of the car window. If a strip drops out of sight you know there's a flat.



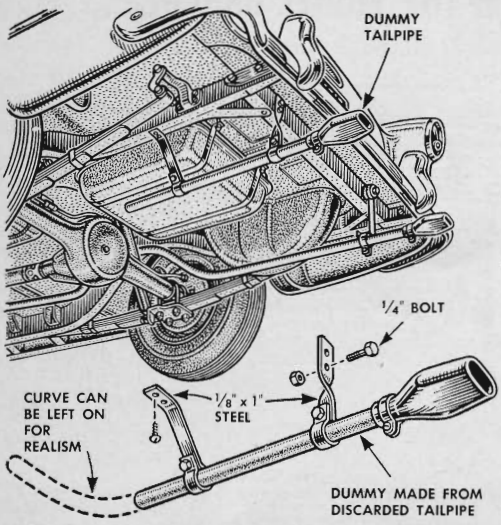
For a rear-window defroster, attach an old car-heater fan to the parcel shelf. Cushion it with rubber. Use a grounded metal plate under the shelf as a screw anchor. Rig a variable-resistance switch on the hot side of the ammeter to feed the motor.



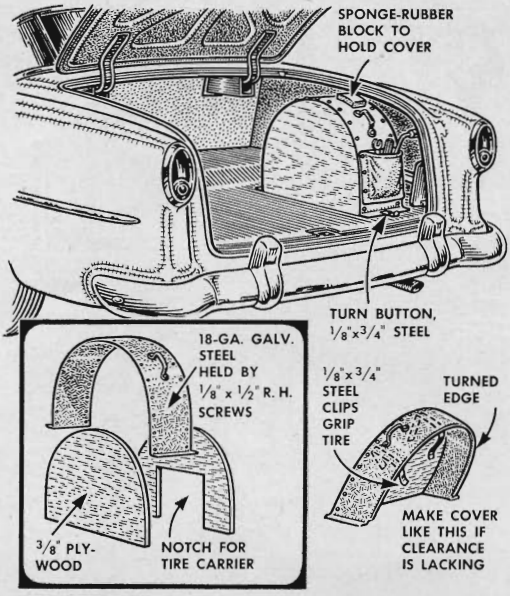
To mark leaks in tubes, one garageman twists skewer-shaped pins from stiff wire. He hangs them on a peg near the test tub and inserts one in each puncture he finds. When he gets around to repairing the tube, he replaces the pins on the peg.

Please turn the page for more auto hints

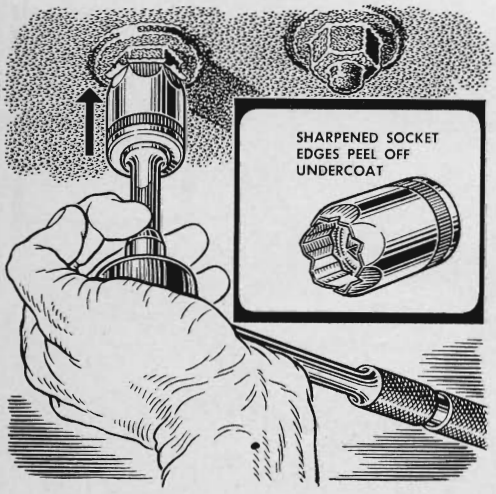
MORE Hints from the Model Garage



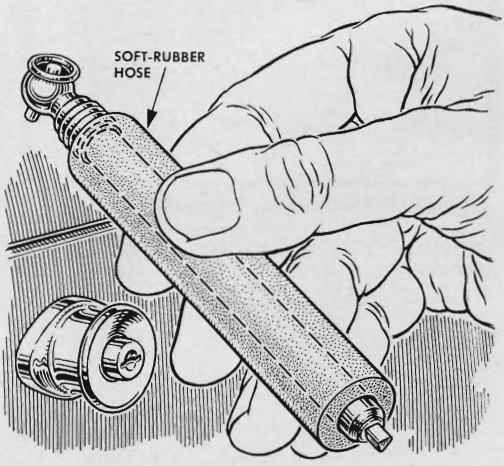
That dual-exhaust effect for the going-away view can be produced this way if you don't want the real thing. Scrounge around an auto junk yard until you find a suitable tailpipe. Then bracket it opposite the real one and clamp on twin chrome extensions.


SPONGE-RUBBER BLOCK TO HOLD COVER
TURN BUTTON, 1/8"x3/4" STEEL
18-GA. GALV. STEEL HELD BY 1/8" x 1/2" R. H. SCREWS
3/8" PLY-WOOD
NOTCH FOR TIRE CARRIER
1/8"x3/4" STEEL CLIPS GRIP TIRE
TURNED EDGE
MAKE COVER LIKE THIS IF CLEARANCE IS LACKING

A tire cover like this will help keep a trunk compartment clean and prevent smudges on clean luggage or packages stored there. A dirty tire and wheel ought to have a good washing before going into the trunk, but there's seldom a chance for this.



Hard undercoating makes it difficult to remove body and fender bolts from a car that has had a heavy application. To speed the operation, one shop owner uses sockets ground to a sharp edge like this. The knife edge cuts right through the coating.



A tire gauge carried in a toolbox or the glove compartment will be protected and won't cause an annoying rattle if you locate rubber hose of the right diameter, cut off a piece and slip it on the gauge. You can take readings without removing it.